

ABSTRACT OF THE DISCLOSURE

A valve seat is produced by (a) using, as a raw material powder for forming a matrix, an Fe-based alloy powder with an average particle size of 20 to 50 μm , and using, as a raw material powder for forming a hard dispersion phase, a Co-based alloy powder with an average particle size of 20 to 50 μm , (b) conducting solid phase sintering, under vacuum, of a pressed compact formed from a mixed powder generated by mixing the Co-based alloy powder into the Fe-based alloy powder in sufficient quantity to account for 25 to 35% by weight of the combined weight with the Fe-based alloy powder, and causing the Co, Cr and Si components of the Co-based alloy powder to diffuse and migrate into the matrix, and the Fe component of the Fe-based alloy powder to diffuse and migrate concurrently into the hard dispersion phase, thereby markedly improving adhesion of the hard dispersion phase to the matrix, and forming, as a result, an Fe-based sintered alloy substrate with a porosity of 10 to 20%, and comprising an Fe-Co alloy matrix in which is uniformly distributed a hard dispersion phase of a Mo-Fe-Co alloy having a 2 phase mixed system of an Fe-Co alloy phase and a Mo-Co alloy phase, and (c) infiltrating this Fe-based sintered alloy substrate with copper or a copper alloy.